

**ENGINEERING-SCIENCE, INC.** a unit of  
**PARSONS ENVIRONMENTAL SERVICES, INC.**

1700 Broadway, Suite 900 • Denver, Colorado 80290 • (303) 831-8100 • Fax: (303) 831-8208

September 23, 1994  
PHII:092394:02

Mr. Randy Ogg  
Environmental Restoration Program Manager  
EG&G Rocky Flats, Inc.  
Rocky Flats Plant  
P.O. Box 464, Bldg. 080  
Golden, CO 80402-0464

Subject: **Submittal of the Proposed Field Schedule**  
Operable Unit 4 Phase II RFI/RI Requirements Post Closure Assessment  
Task Order MTS 343780GG3 Under Master Task Subcontract MTS 225453RR  
**FOR REVIEW AND COMMENT**

Reference: EG&G "Definitization of MTS Task Order Award Number MTS 343780GG3", dated April 29, 1994.

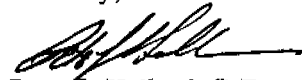
Dear Mr. Ogg:

Attached is the proposed OU4 Phase II RFI/RI Field Schedule developed during the September 15 and 22, 1994 meetings between EG&G, Parsons/ES, and Tierra Environmental. The schedule incorporates key pre-mobilization and OU4 Phase II RFI/RI Report preparation activities necessary to identify the field program's critical path.

Key assumptions associated with the field schedule include: all surface geophysics, conductivity/field nitrate, and geoprobe generated results will be integrated with the existing hydrogeological knowledge base and documented in Technical Memorandum #5 (TM #5); TM #5 will definitize the new monitoring well numbers and locations for approval by EG&G, the DOE, and EPA/CDPHE; drilling activities will commence upon receipt of EPA/CDPHE conditional approval of TM #5 which is assumed to occur coincident with receipt of comments; drilling program assumes 40 boreholes installed using three drilling rigs; the draft OU4 Phase II RFI/RI Report will include results obtained through the July 1995 sampling events; the draft final OU4 Phase II RFI/RI Report will incorporate results from the October 1995 sampling event; and the final OU4 Phase II RFI/RI Report will include all results through the January 1996 sampling event. The draft, draft final, and final OU4 Phase II RFI/RI Report milestones are based on the negotiated contract as definitized in the referenced transmittal.

If you have any questions, please contact me directly at 764-8883.

Sincerely,



Peter J. Holland, P.E.  
Project Manager, Phase II RFI/RI

cc: K. Ruger, EG&G  
S. Paris, EG&G  
EG&G Records (2-c/o C. Horne)  
K. Pacheco, Tierra Environmental

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ACTIVITY ID	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	ORIG DUR	TOTL FLT	199419951996											
						S	O	N	D	J	F	M	A	M	J	J	A
PRE-FIELD MOBILIZATION																	
1800	HEALTH & SAFETY PLAN	13SEP94	7OCT94	19	0												
1810	IMPLEMENTATION/SUPPORT PLAN	13SEP94	7OCT94	19	0												
1820	SUBCONTRACTOR TRAINING	3OCT94	23DEC94	58	9												
1830	EQUIPMENT & SUPPLIES	3OCT94	5JUL95	192	34												
1860	NEPA	13SEP94	3FEB95	101	7												
1900	READINESS REVIEW	13SEP94	3FEB95	101	5												
1910	READINESS REVIEW - NON- INTRUSIVE	13SEP94	7OCT94	19	0												
1920	READINESS REVIEW - INTRUSIVE (GEOPROBE)	13SEP94	14OCT94	24	12												
1922	READINESS REVIEW - INTRUSIVE (FIELD DRILLING)	2JAN95	3FEB95	25	5												
SITE MANAGEMENT																	
2620	SITE MANAGEMENT	10OCT94	5JUL95	187	34												
2630	SUBCONTRACTOR SITE MANAGEMENT	10OCT94	5JUL95	187	34												
2640	SAMPLE MANAGEMENT	10OCT94	5JUL95	187	34												
2650	FIELD QA	10OCT94	5JUL95	187	34												
FIELD MEASUREMENTS																	
1929	FIELD MEASUREMENTS	19SEP94	31OCT95	285	15												
1930	CONDUCTIVITY/FIELD NITRATE SURVEY	19SEP94	23SEP94	5	5												
1931	WELL/PIEZOMETER WATER LEVELS	19SEP94	31OCT95	285	15												
GEOPHYSICS																	
2000	GEOPHYSICS	10OCT94	21MAR95	113	108												
2030	ELECTROMAGNETIC	10OCT94	28OCT94	15	12												
2010	SEISMIC REFRACTION	10OCT94	11NOV94	25	0												
2020	GPR	14NOV94	6DEC94	15	0												
2040	DOWNHOLE GEOPHYSICS	16MAR95	21MAR95	4	108												
GEOPROBE																	
2050	GEOPROBE PROGRAM	17OCT94	11NOV94	20	12												
2060	GEOPROBE MOBILIZATION	17OCT94	18OCT94	2	12												
2070	GEOPROBE DRILLING	19OCT94	11NOV94	18	12												
TECH MEMO #5																	
2080	TECHNICAL MEMORANDUM (TM) #5	3OCT94	7APR95	131	95												
2090	PREPARE DRAFT TM #5	3OCT94	23DEC94	58	0												
2091	INTERNAL REVIEW	27DEC94	9JAN95	10	0												
PARSONS/ES																	
OU4 PHASE II RFI/RI																	
PHASE II WORK PLAN IMPLEMENTATION																	
Sheet 1 of 6																	
Plot Date 23SEP94 Data Date 13SEP94 Project Start 13SEP94 Project Finish 4SEP96												Activity Bar/Early Dates Critical Activity Milestone/Flag Activity			Date Revision Checked Approved		
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ACTIVITY ID	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	ORIG DUR	TOTL FLT
2092	INTRACHECK	27DEC94	29DEC94	3	0
2093	INTRACHECK COMMENT REVIEW & RESOLUTION	30DEC94	2JAN95	2	0
2096	COMPLIANCE REVIEW	3JAN95	5JAN95	3	0
2097	COMPLIANCE COMMENT REVIEW & RESOLUTION	6JAN95	9JAN95	2	0
2099	TRANSMIT DRAFT TM #5		9JAN95	0	0
2100	DRAFT TM #5 - EG&G/DOE REVIEW	10JAN95	12JAN95	3	0
2101	DRAFT TM #5 - COMMENT RESOLUTION	13JAN95	16JAN95	2	0
2102	DRAFT TM #5 - INCORPORATION OF COMMENTS	17JAN95	24JAN95	6	0
2103	INTERNAL REVIEW	25JAN95	27JAN95	3	0
2104	INTRACHECK	25JAN95	26JAN95	2	0
2105	INTRA COMMENT REVIEW & RESOLUTION	27JAN95	27JAN95	1	0
2110	TRANSMIT DRAFT FINAL TM #5		27JAN95	0	0
2120	DRAFT FINAL TM #5 - EPA/CDPHE REVIEW	30JAN95	10FEB95	10	0
2121	DRAFT FINAL TM #5 - COMMENT RESOLUTION	13FEB95	17FEB95	5	95
2122	DRAFT FINAL TM #5 - INCORPORATION OF COMMENTS	21FEB95	7MAR95	11	95
2123	INTERNAL REVIEW	8MAR95	10MAR95	3	95
2124	INTRACHECK	8MAR95	9MAR95	2	95
2125	INTRA COMMENT REVIEW & RESOLUTION	10MAR95	10MAR95	1	95
2130	TRANSMIT FINAL TM #5		10MAR95	0	95
2140	FINAL TM #5 - EPA/CDPHE APPROVAL	13MAR95	7APR95	20	95
2150	MONITORING WELL INSTALLATION AND SAMPLING	2JAN95	31JAN96	275	33
2160	DRILLING MOBILIZATION	13FEB95	14FEB95	2	0
2170	MONITORING WELL INSTALLATION	15FEB95	10APR95	38	0
2180	DRILL/CONSTRUCT - NON-PROTECTED AREA	15FEB95	8MAR95	15	0
2280	DRILL/CONSTRUCT - PROTECTED AREA	9MAR95	10APR95	23	0
2270	MONITORING WELL DEVELOPMENT	23FEB95	17APR95	38	34
2200	DEVELOP - NON-PROTECTED AREA	23FEB95	15MAR95	15	34
2300	DEVELOP - PROTECTED AREA	16MAR95	17APR95	23	34
2320	CORE LOGGING	2MAR95	1MAY95	43	79
2305	DEMOB DRILL RIGS	25APR95	26APR95	2	82
2310	WELL WATER SAMPLING	2JAN95	31JAN96	275	33

Plot Date 21SEP94

Data Date 11SEP94

Project Start 11SEP94

Project Finish 4SEP96

Activity Bar/Bar/Bar Dates

Activity Bar/Bar/Bar Dates

Activity Bar/Bar/Bar Dates

Activity Bar/Bar/Bar Dates

PARSONS/ES

OU4 PHASE II RFI/RI

PHASE II WORK PLAN IMPLEMENTATION

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Date Revision Checked Approved

ACTIVITY ID	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	ORIG DUR	TOTL FLT
2312	JANUARY 95 WELL WATER SAMPLING	2JAN95	31JAN95	22	48
2314	APRIL 95 WELL WATER SAMPLING	11APR95	28APR95	14	0
2316	JULY 95 WELL WATER SAMPLING	3JUL95	31JUL95	20	12
2318	OCTOBER 95 WELL WATER SAMPLING	2OCT95	31OCT95	22	15
2319	JANUARY 96 WELL WATER SAMPLING	2JAN96	31JAN96	22	33
2321	IDM SAMPLING	23FEB95	1JUN95	70	53
2330	AQUIFER TESTING				
2340	SLUG TESTS	18APR95	5JUL95	55	34
2345	TRACER TESTS	18APR95	17MAY95	22	45
2350	PUMP TESTS	18APR95	5JUL95	55	34
2352	INFILTRMETER TESTS	5JUN95	5JUL95	22	34
2354	INFILTRMETER TESTS - INSTALLATION/SETUP	11APR95	20JUN95	50	44
2356	INFILTRMETER TESTS - CONDUCT TEST	11APR95	24APR95	10	44
2356	INFILTRMETER TESTS - CONDUCT TEST	25APR95	20JUN95	40	44
2360	ITS CHARACTERIZATION				
2370	ITS - FLOW METER INSTALLATION	14NOV94	31OCT95	245	15
2380	ITS - WATER LEVEL AND FLOW MONITORING	14NOV94	13DEC94	20	7
2390	ITS - WATER QUALITY SAMPLES	14DEC94	21DEC95	260	7
2391	ITS JANUARY 95 WATER SAMPLING	2JAN95	31OCT95	213	15
2394	ITS APRIL 95 WATER SAMPLING	2JAN95	31JAN95	22	47
2397	ITS JULY 95 WATER SAMPLING	3APR95	28APR95	20	5
2400	ITS OCTOBER 95 WATER SAMPLING	3JUL95	31JUL95	20	12
2400	ITS OCTOBER 95 WATER SAMPLING	2OCT95	31OCT95	22	15
2440	SURFACE WATER FLOW AND QUALITY SAMPLING	2JAN95	31OCT95	213	15
2450	GROUNDWATER SEEPS	2JAN95	31OCT95	213	15
2451	JANUARY 95 GROUNDWATER SEEPS SAMPLING	2JAN95	31JAN95	22	47
2452	APRIL 95 GROUNDWATER SEEPS SAMPLING	3APR95	28APR95	20	5
2453	JULY 95 GROUNDWATER SEEPS SAMPLING	3JUL95	28JUL95	19	12
2454	OCTOBER 95 GROUNDWATER SEEPS SAMPLING	2OCT95	31OCT95	22	15
2460	SURFACE WATERS	2JAN95	31OCT95	213	15

Plot Date 23SEP94  
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Project Start 13SEP94  
Project Finish 4SEP96

Activity Bar/Early Dates  
Critical Activity  
Progress Bar  
Milestone/Flag Activity

PARSONS/ES  
OU4 PHASE II RFI/RI  
PHASE II WORK PLAN IMPLEMENTATION

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ACTIVITY ID	ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	ORIG DUR	TOTL FLT
SURFACE WATER SAMPLING					
2470	JANUARY 95 SURFACE WATER SAMPLING	2JAN95	31JAN95	22	47
2480	APRIL 95 SURFACE WATER SAMPLING	3APR95	28APR95	20	5
2490	JULY 95 SURFACE WATER SAMPLING	3JUL95	31JUL95	20	12
2491	OCTOBER 95 SURFACE WATER SAMPLING	2OCT95	31OCT95	22	15
SEDIMENT SAMPLING					
2498	SEDIMENT SAMPLING	3APR95	28APR95	20	5
2500	SEDIMENT SAMPLING - BOWMAN'S POND	3APR95	28APR95	20	5
2501	SEDIMENT SAMPLING - OTHERS	3APR95	28APR95	20	5
LAB ANALYSIS					
2510	LABORATORY ANALYSIS	2JAN95	17MAY96	351	33
2512	WELL SAMPLES	2JAN95	17MAY96	351	33
2516	JANUARY 95 WELL WATER SAMPLES	2JAN95	17MAY95	97	57
2517	JANUARY 95 WELL WATER SAMPLES - RAD	2JAN95	17MAY95	97	57
2518	JANUARY 95 WELL WATER SAMPLES - NON-RAD	2JAN95	26APR95	82	57
2521	APRIL 95 WELL WATER SAMPLES	11APR95	15AUG95	89	5
2522	APRIL 95 WELL WATER SAMPLES - RAD	11APR95	15AUG95	89	5
2524	APRIL 95 WELL WATER SAMPLES - NON-RAD	11APR95	25JUL95	74	0
2527	JULY 95 WELL WATER SAMPLES	3JUL95	14NOV95	95	12
2528	JULY 95 WELL WATER SAMPLES - RAD	3JUL95	14NOV95	95	12
2530	JULY 95 WELL WATER SAMPLES - NON-RAD	3JUL95	24OCT95	80	27
2533	OCTOBER 95 WELL WATER SAMPLES	2OCT95	20FEB96	97	15
2534	OCTOBER 95 WELL WATER SAMPLES - RAD	2OCT95	20FEB96	97	15
2536	OCTOBER 95 WELL WATER SAMPLES - NON-RAD	2OCT95	29JAN96	82	30
2540	JANUARY 96 WELL WATER SAMPLES	2JAN96	17MAY96	98	33
2542	JANUARY 96 WELL WATER SAMPLES - RAD	2JAN96	17MAY96	98	33
2544	JANUARY 96 WELL WATER SAMPLES - NON-RAD	2JAN96	26APR96	83	48
2719	SURFACE WATER SAMPLES	2JAN95	20FEB96	288	15
2720	JANUARY 95 SURFACE WATER SAMPLES	4JAN95	17MAY95	95	57
2721	JANUARY 95 SURFACE WATER SAMPLES - RAD	2JAN95	17MAY95	97	57
2722	JANUARY 95 SURFACE WATER SAMPLES - NON-RAD	4JAN95	26APR95	80	55
2723	APRIL 95 SURFACE WATER SAMPLES	3APR95	25JUL95	80	20
2724	APRIL 95 SURFACE WATER SAMPLES - RAD	3APR95	15AUG95	95	5

Plot Date

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13SEP94

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4SEP96

Activity Bar/Early Dates

Legend

Activity Bar

Critical Activity

Legend

Activity Bar

Milestone/Flag Activity

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Activity Bar

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OU4 PHASE II RFI/RI  
PHASE II WORK PLAN IMPLEMENTATION

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Date

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ACTIVITY ID		ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	ORIG DUR	TOTL FLT	LAB ANALYSIS											
							1994	1995					1996					
							S	O	N	D	J	F	M	A	M	J	J	A
2725	APRIL 95 SURFACE WATER SAMPLES - NON-RAD		3APR95	25JUL95	80	20												
2726	JULY 95 SURFACE WATER SAMPLES		3JUL95	14NOV95	95	12												
2727	JULY 95 SURFACE WATER SAMPLES - RAD		3JUL95	14NOV95	95	12												
2728	JULY 95 SURFACE WATER SAMPLES - NON-RAD		3JUL95	24OCT95	80	27												
2729	OCTOBER 95 SURFACE WATER SAMPLES		2OCT95	20FEB96	97	15												
2730	OCTOBER 95 SURFACE WATER SAMPLES - RAD		2OCT95	20FEB96	97	15												
2731	OCTOBER 95 SURFACE WATER SAMPLES - NON-RAD		2OCT95	29JAN96	82	30												
2740	SEDIMENT SAMPLES		3APR95	15AUG95	95	5												
2742	SEDIMENT SAMPLES - RAD		3APR95	15AUG95	95	5												
2743	SEDIMENT SAMPLES - NON-RAD		3APR95	25JUL95	80	20												
2750	ITS WATER SAMPLES		2JAN95	20FEB96	288	15												
2751	JANUARY 95 ITS WATER SAMPLES		2JAN95	17MAY95	97	57												
2752	JANUARY 95 ITS WATER SAMPLES - RAD		2JAN95	17MAY95	97	57												
2753	JANUARY 95 ITS WATER SAMPLES - NON-RAD		2JAN95	26APR95	82	57												
2760	APRIL 95 ITS WATER SAMPLES		3APR95	15AUG95	95	5												
2761	APRIL 95 ITS WATER SAMPLES - RAD		3APR95	15AUG95	95	5												
2762	APRIL 95 ITS WATER SAMPLES - NON-RAD		3APR95	25JUL95	80	20												
2770	JULY 95 ITS WATER SAMPLES		3JUL95	14NOV95	95	12												
2771	JULY 95 ITS WATER SAMPLES - RAD		3JUL95	14NOV95	95	12												
2772	JULY 95 ITS WATER SAMPLES - NON-RAD		3JUL95	24OCT95	80	27												
2780	OCTOBER 95 ITS WATER SAMPLES		4OCT95	20FEB96	95	15												
2781	OCTOBER 95 ITS WATER SAMPLES - RAD		2OCT95	20FEB96	97	15												
2782	OCTOBER 95 ITS WATER SAMPLES - NON-RAD		4OCT95	29JAN96	80	30												
2790	INVESTIGATION DERIVED MATERIAL		23FEB95	18SEP95	145	53												
2791	IDM SAMPLES - RAD		23FEB95	18SEP95	145	53												
2792	IDM SAMPLES - NON-RAD		23FEB95	25AUG95	130	68												
2800	LAB DATA VALIDATION		18JAN95	17JUN96	359	55												
WELL ABANDONMENT																		
2409	WELL ABANDONMENT		1FEB96	25APR96	60	91												
2410	WELL ABANDONMENT - PIEZOMETERS		1FEB96	22MAR96	36	91												
2420	WELL ABANDONMENT - VADOSE ZONE INSTRUMENTATION		1FEB96	14MAR96	30	121												
2430	PHASE II MONITORING WELLS		1FEB96	25APR96	60	91												

Plot Date  
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Project Start  
Project Finish

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13SEP94  
13SEP94  
4SEP96

Activity Bar/Early Date  
Critical Activity  
Progress Bar  
Milestone/Flag Activity

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PHASE II WORK PLAN IMPLEMENTATION

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Date

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Plot Date

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13SEP94

Project Start

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Project Finish

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Activity Bar/Early Dates

Critical Activity

Progress Bar

Milestone/Flag Activity

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OU4 PHASE II RFI/RI

PHASE II WORK PLAN IMPLEMENTATION

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ACTIVITY		ACTIVITY DESCRIPTION	EARLY START	EARLY FINISH	ORIG DUR	TOTL FLT	1994												1995												1996																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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